DoorPhone VoIP

IPDPS – 01C
IPDPS – 02C
IPDPS – 01
IPDPS – 02

Installation and Operating Instructions

Welcome

We congratulate you on purchase of "**DoorPhoneSlim VoIP**" (VoIP = Voice over IP), which is the improved version of successful "New DoorPhone" (NUDV). This DoorPhone VoIP will widely manage to satisfy your needs of communication with persons at the building front door or your company entry, or family house doorway. The universality lies in possibility to connect this guard to an Ethernet network or VoIP exchange or directly to SIP server through internet conection.

The basic DoorPhone VoIP module ***IPDPS-01*** is supplied with 1 button, ***IPDPS-02*** is supplied with 2 buttons The next version of basic VoIP modules (***IPDPS-01C*** and ***IPDPS-02C***) is with integrated colour camera.

The Doorphone is supplied from AC/DC powersupply 12V. The basic features include the possibility to open up to two doors by means of connected electrical locks (the buttons can be used for door code opening) and easier programming by WEB sites from PC by network connection.

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1 Basic Description

1.1 Features

- Ø Voice communication is supplied only from telephone line
- Ø Two 16digit numbers (IP adress) with each button
- Ø Day/night switching
- Ø Possibility of the call extension by * or # choice
- Ø Possible to connect two independent locks for door opening
- Ø Possible use of 5 switch modes (e.g. camera, lighting, gradual opening)
- Ø Two codes for hanging up the guard from telephone
- Ø Two codes for door opening from telephone
- Ø Six code locks (password from buttons at the door)
- Ø Integrated heating of printed circuit
- Ø Permanent lighting through visiting cards
- Ø Included color camera
- Ø Ethernet – 10/100Mb with standard 10BaseT a 100BaseTx
- Ø Web server for remote configuration – BOA
- Ø Software for Internet telephony (VoIP) – Linphone
- Ø Operating system – Linux 2.6
- Ø USB for connection camera – USB guest 1.1, software GSPCA software for video transmission to the browsers in PC – W3CAM(J-PEG, RTSP Streem)
- Ø SIP connection P2P or PBX network system
- Ø WEB – firmware upgradeable
- Ø WEB – interface for control and setup parameters

1.2 Module Assembly

The IPDPS are the basic modules with color camera IPDPS-01/02C or without camera IPDPS-01/02.

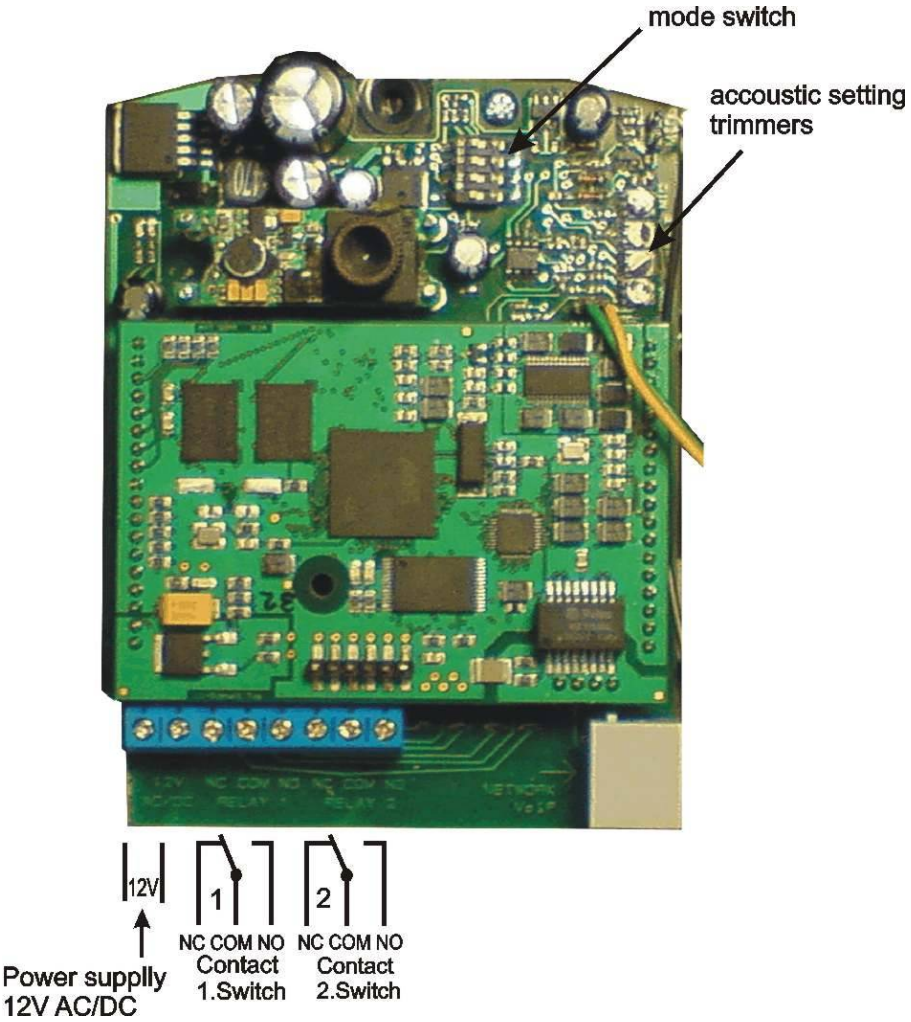
IPDPS-01 IPDPS-02 IPDPS-01C IPDPS-02C

1.3 Module Features

1.3.1 IPDPS Basic Module

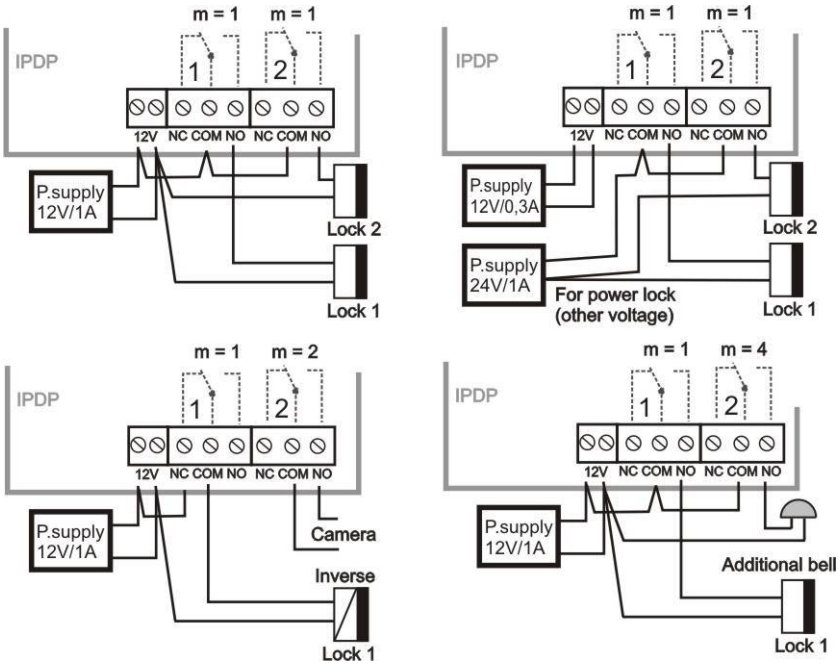
The IPDPS basic module assembling from modulus IP and motherboard. Positioning setting elements and connectors is on picture 1.

For IPDPS is necessary used the AC voltage of min. 10Vst - max. 15Vst or DC voltage of min. 12Vss to max. 18Vss must be energized to "**12V**" terminal. This source loading depends on number of modules, since it simultaneously serves feeding of lighting through visiting cards – at max. number of connected modules the demand will not exceed 300mA. This source can be also used for feeding of lock(s), and then it is necessary to consider the electrical lock demand. In practice the alternating feeder 12V/1A mostly meets these demands.



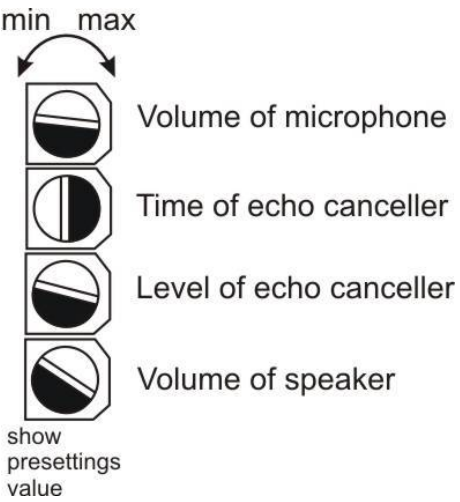
Picture 1 Basic module - motherboard

The connection of relay contact terminals is shown on fig. 1. The "**NO**" designation means an idle-disconnected contact, "**COM**" means a pin contact (middle) and "**NC**" means an idle-connected contact. The contacts of both switches are galvanically isolated each other and from other guard circuits. The variants of connection are shown on picture. 2.



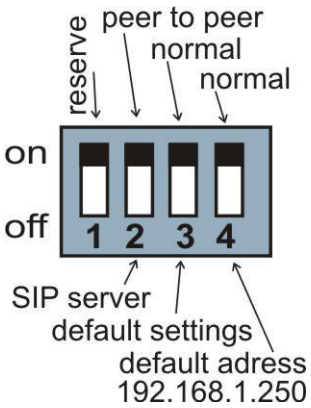
Picture 2 Examples of relays connections

Setting voice communication – position trimmers are presetting from manufacture and in majority case agree with, therefore changes setting altering only in necessary case. Basic position of trimmers, sense of rotation and meaning trimmers are illustration on picture 3.



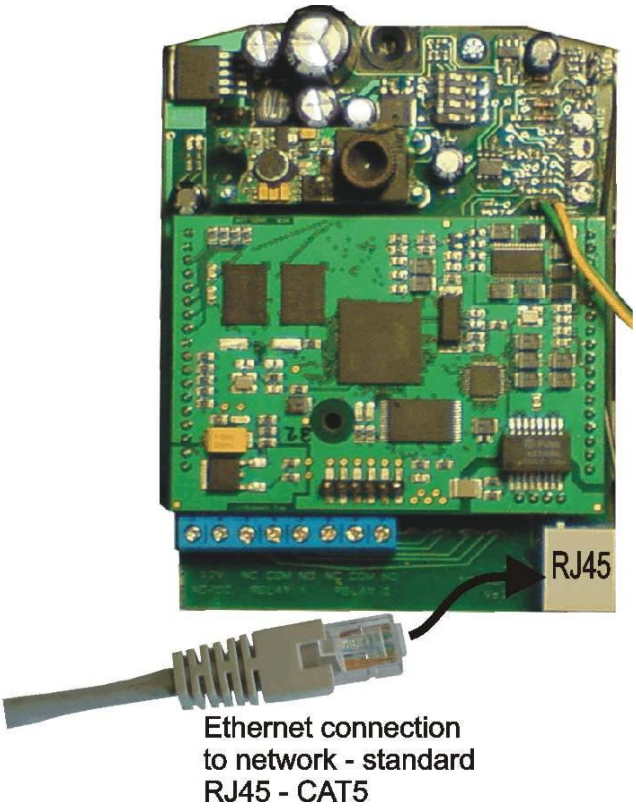
Picture 3 Setting of trimmers

DIP switch setting basic operation and default setting. See on picture 4.



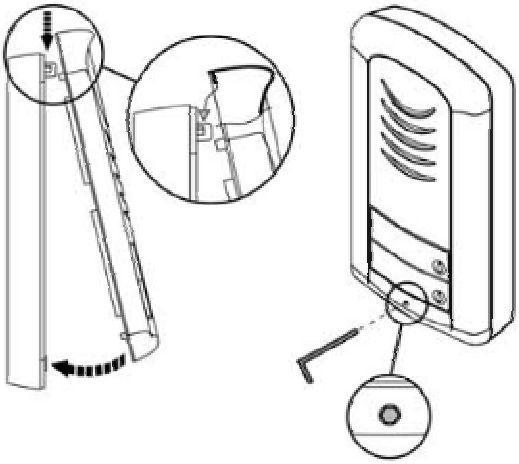
Picture 4 DIP switch settings

1.3.2 Connect to Network – Ethernet

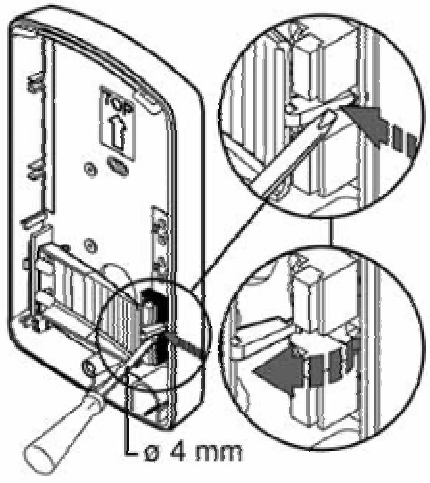


1.4 Installation of DoorPhone VoIP Assembly

1.4.1 Open and close the cover of IPDPS

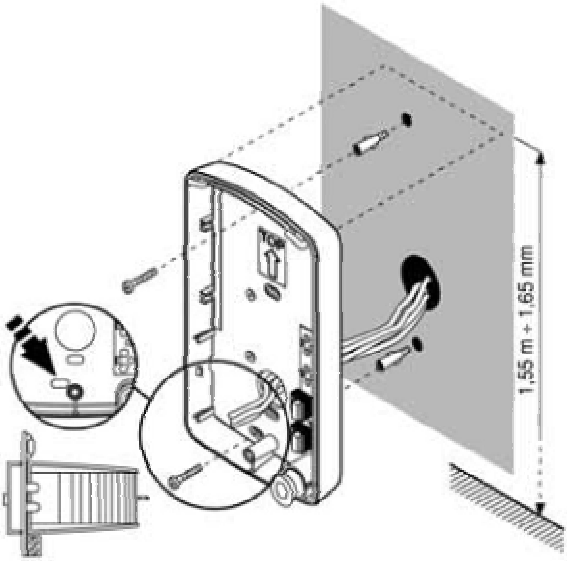


1.4.2 Dismounting lighting of nameplate

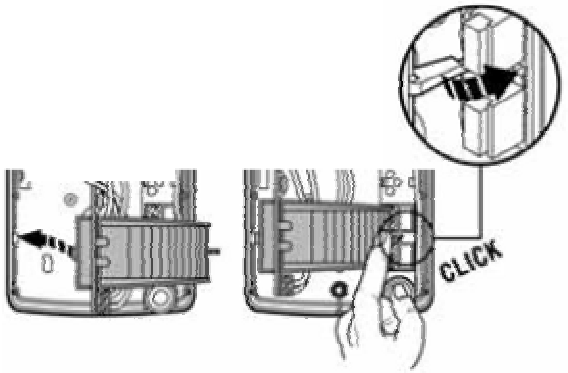


1.4.3 Assembly IPDPS on the wall

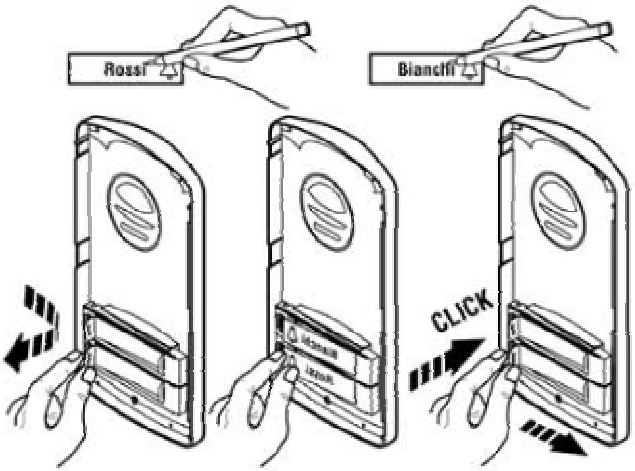
The installation is made by screwing to the wall by means of dowels.



1.4.4 Return lighting name plate after mounting on the wall.



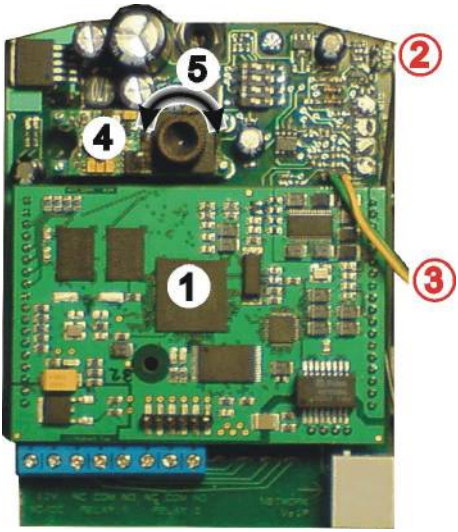
1.4.5 Change of nameplates



Each button has its separate nameplate hold by means of plastic flag (see figure). The paper nameplates can be printed from Excel form (to be downloaded on www.alphatech.cz).

1.5 Focus camera and description of front panel

If is need focus picture from camera, so everything is illustration on picture basic module on Picture 5 .



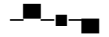
Picture 5 camera in IPDPS

1. VoIP module
2. connect microphone
3. connect speaker
4. camera
5. turning with objective of camera is focus picture

2 DoorPhone VoIP Operation

2.1 Signaling Overview

The all-purpose guard signals an acoustic conditions they may occur during operation. Another signaling can be done by means of red LED (placed under microphone hole). You can listen the signaling samples in Nset setting program.

Condition	Tones	Tone frequency
Line lifting up		425-850-1275
Line hanging up		1275-850-425
Report after calling		425-850-1275
Notice about call end		1275
Parameter confirmation		
Switch on (Reset)		1275-850-1275
Error (anything, if unsuitable)		425….
Empty memory (no progr. numb.)		850-1275-1700…

2.2 Visitor at Door

The all-purpose guard function is influenced partly by used guard assembly (with keyboard or without it) and partly by setting of guard parameters.
The DoorPhone **buttons** are provided by nameplates or positions of persons inside the object. The incoming person will press the corresponding button, the DoorPhone will lift up the VoIP canale neither immediately (the button is not the first number from code lock), or with delay and dial the programmed phone number thru VoIP, but dial number differs by choice mode, which is set in the DoorPhone :

- **Day/night** mode = being the DoorPhone in Day mode, so it is always dialing a number set in table 1, in Night mode, it is always dialing a number set in table 2.
- mode **two number group** = first press – it always dials a number set in table *1*. By repeated press of the same button or detection of busy tone after dialing the DoorPhone will select the number from the second group (*table 2*). The next press of the same button again selects a number of the first group, etc.……

The switch (**code lock**) can be controlled by first 10 buttons of DoorPhone. If the visitor at door presses buttons in such combination that meet the preprogrammed code and the time among presses is not bigger than the set point, then the DoorPhone will pick up and close the corresponding switch (if

set in m=1 or m=5 modes) to the period given by seting in parameters. Then it will hang up.

2.3 Person Inside Object

The person inside object is considered a person that is in phone contact with DoorPhone.

2.3.1 Outgoing Call

The outgoing call is the call from DoorPhone (caused by visitor). After guard choice the telephone is ringing inside object and the pickuping up will allow speaking to the visitor at door. The code choice can close the switch, if set to m=1 or m=5 modes, change over the Day/Night modes and hang up the DoorPhone. The DoorPhone in 10 seconds before call end will send a notice about call end and the call may be extended by sign selection (* or #). The telephone hanging up will end the call.

2.3.2 Incoming Call

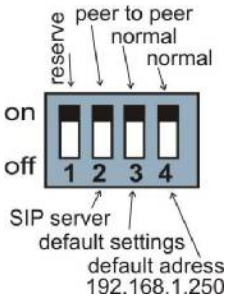
The incoming call is the call to the DoorPhone (caused by person inside object). After exchange number selection, where the DoorPhone is connected, the DoorPhone is ringing and when set number of rings is over, the DoorPhone will pick up and it is possible to speak. The possibilities are the same as with outgoing call.

3 Programming of Parameters

3.1 Basic VoIP settings

3.1.1 Choosing a mode and login

It is important to choose a DoorPhone mode first. The DoorPhone can work in the PeerToPeer mode or SIP server mode. The mode setting can be made by a relevant switch (DIP switch see on picture 8). In the SIP server mode is possible to choose SIP server (external). It can be set in a configuration interface of the DoorPhone.



Picture 6 DIP switch setting

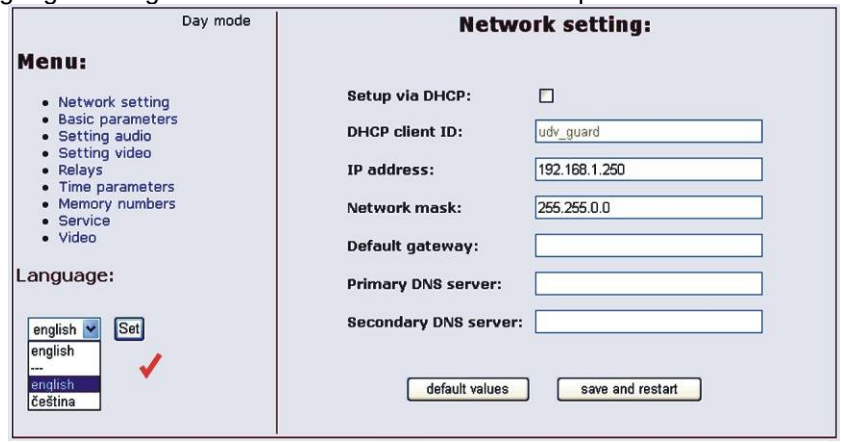
In your web browser enter IP address of the DoorPhone, default is 192.168.1.250. See Picture 7. Enter user name and password. User name is „admin“, default password is „1234“. See Picture 7.

Picture 7 First site - video from camera

Picture 8 Login to setup

3.1.2 Language option

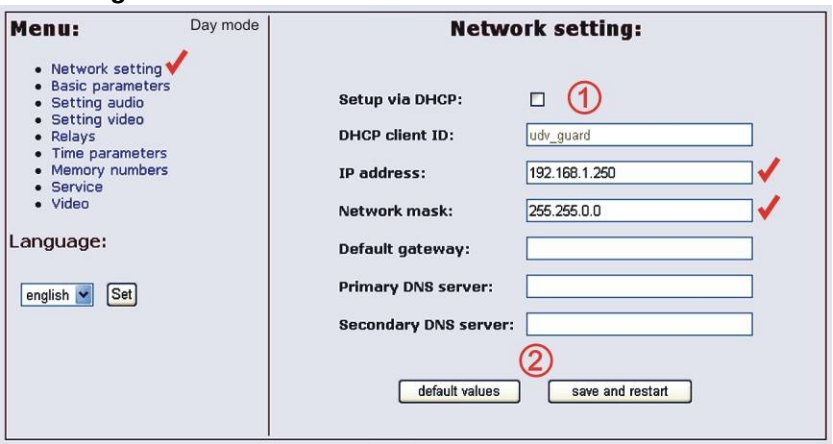
Language setting can be made in a menu on the left panel.



3.1.3 Network settings

Network settings are located in the **Network seting** menu item. It is possible to use DHCP service (1) or you can enter IP addresses manually.

Manual configuration:

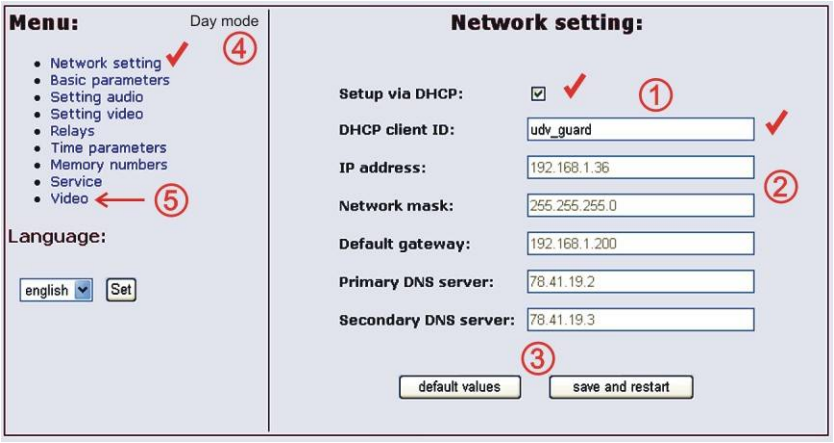


After making changes click on a **save and restart** button.

1 –Enable/disable ethernet settings via DHCP

2 –Default value – presetings to the firm settings. After making changes click on a save and restart button (display screen - see page 21).

DHCP configuration:



After making changes click on a **save and restart** button.

1 –Enable/disable ethernet settings via DHCP

2 –show automatic DHCP generate IP adress and othet settings

3 –Default value – presetings to the firm settings. After making changes click on a save and restart button (display screen - see page 21).

4 –Show mode of DoorPhone – Day/Night

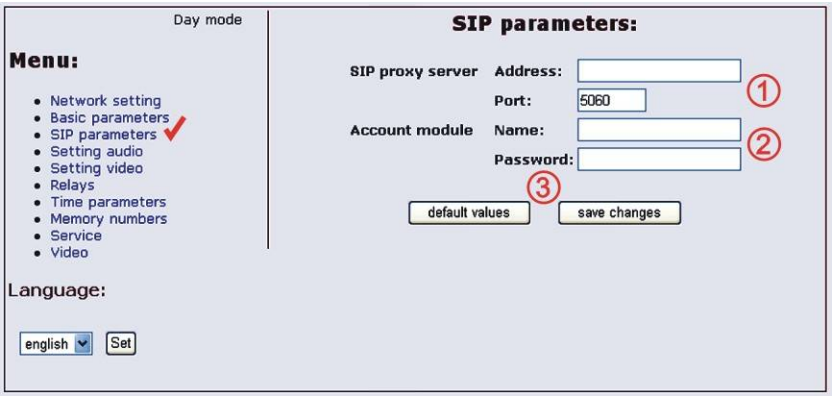
5 –Return to the video from color camera screen

Important: *if you use setup via DHCP, then it's assigning IP address to DoorPhone automatically and network administrator must tell you actual address, to was possibility display video in web browser. Because assigning IP adress can change after e.g . failure power supply in object, so they recommended enjoy DoorPhone with fixed IP address.*

3.1.4 Peer to peer or SIP server connection

The DoorPhone can be set to the peer to peer (P2P) mode or to the SIP server mode by DIP switch (page 16). In P2P mode DoorPhone calling IP adress – in memory buttons (page 26).

If you setting SIP server mode by DIP switch, so add in menu item SIP parameters



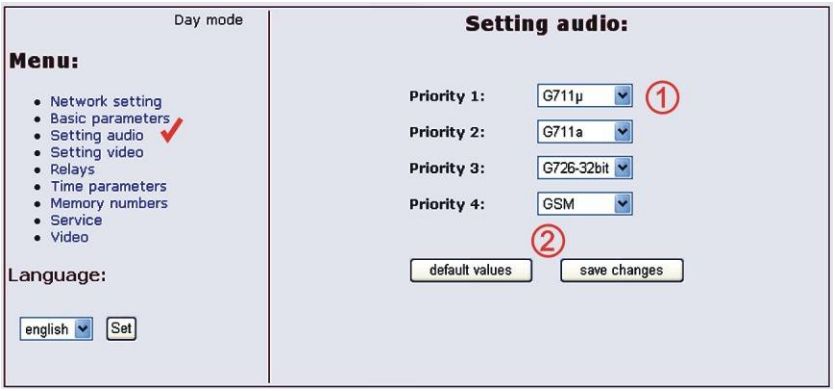
After making changes use the **save changes** button.

1 –SIP proxy server IP adress or the SIP server name and port (usually 5060 or 5061)

2 –Registering data to SIP proxy server

3 –Default value – presetings to the firm settings. After making changes use the save changes button.

3.1.5 Audio codec setting

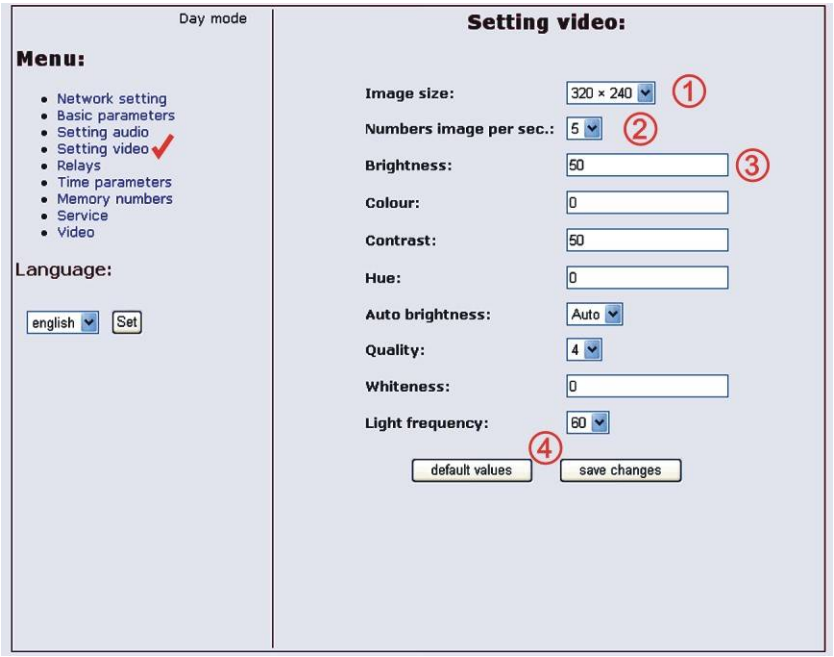


After making changes use the **save changes** button.

1 –There is choosing only priority using audio codecs, used codec is selection automatically at make audio connection in SIP protocol.

2 –Default value – presetings to the firm settings. After making changes use the save changes button.

3.1.6 *Setting video*



After making changes use the **save changes** button.

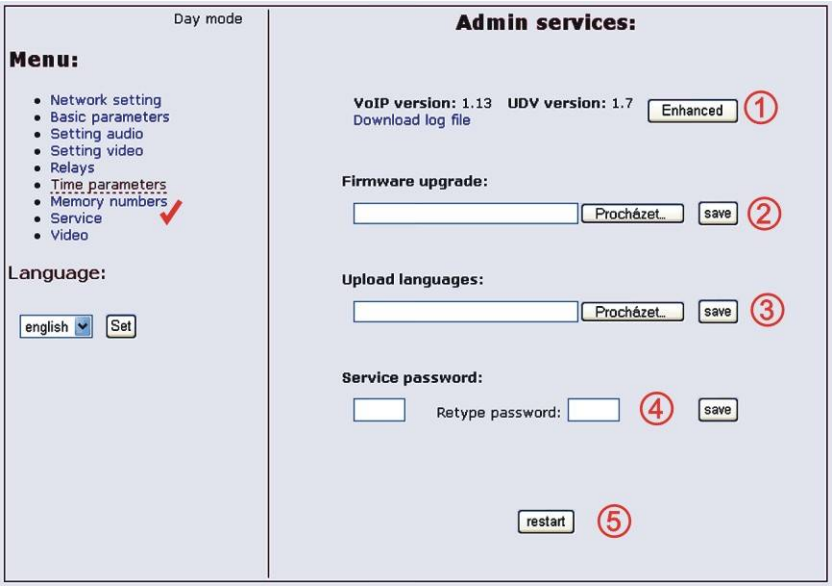
1 –Resolution display video

2 –Number picture per second (frequency restoring picture)

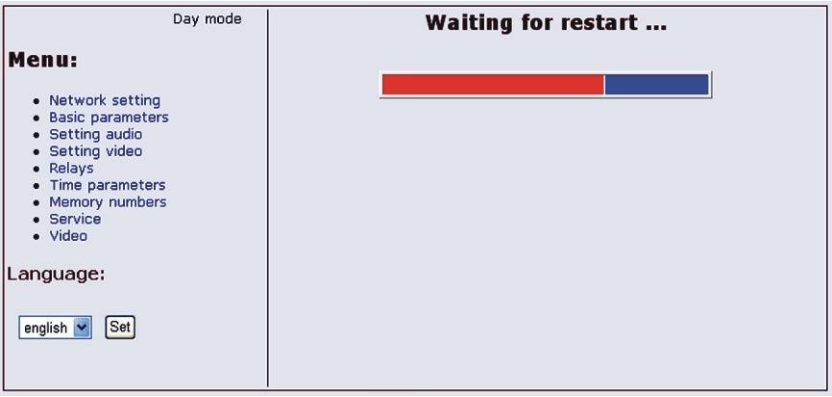
3 –Setting next parameters of camera

4 –Default value – presetings to the firm settings. After making changes use the save changes button.

3.1.7 Service settings

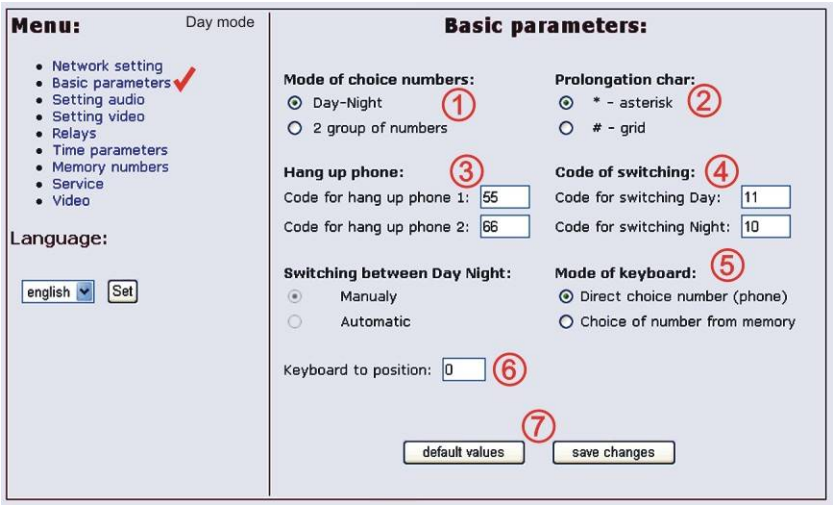


1 –display current version of firmware in module VoIP and in module doorphone, button switching if is has save history events in basic or enhanced mode - it is important to analyses mistakes and problems. This file it is possible save to PC by click on download log file.
2 –tool for upgrade firmware in module VoIP and in module doorphone, switching automatic - information is in upload fille.
3 –Addition / change language file - upload fille with language assignment
4 –change access password, default is 1234
5 –reboot VoIP module.



3.2 Setting DoorPhone parameters

3.2.1 Basic Parameters



After making changes use the **save changes** button.

1 –Mode of DoorPhone choice selects number per **Day/Night** DoorPhone mode or selects numbers of the first and second groups.

2 –Sign for call extension * or # (10sec before call end the DoorPhone will send a notice, then the call may be extended)

3 –Two commands in order to hang up the DoorPhone using both switches [2 digits].The advantage is to set the same command both for switch closing and command to guard hanging up (page 23).

4 –Command for **DAY** / **NIGHT** mode switching

Note: The switchover to Day/Night mode remains set in guard even after power supply disconnection.

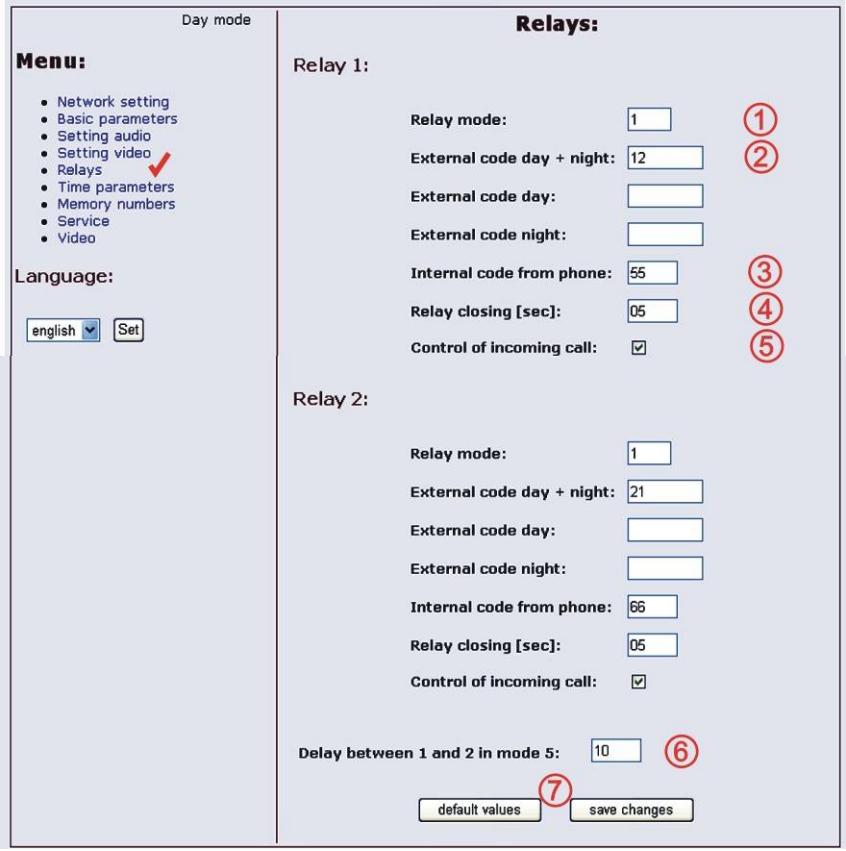
5 – Dialing as on normal telephone (all number of called person should be pressed on keyboard) - recommended for use **SIP proxy server**.
Only 2-digit memory number is entered on keyboard by which the number of called person is stored (memory number corresponds to button number with respect to Day/Night switchover) - recommended for use P2P**-NOT include**

6 –**=0** only NC-mode connected to the basic module
=1 the keyboard connected on the first position (after IPNCx-mod)
=2 the keyboard connected on the second position (after first NC-mod4)
=3 the keyboard connected on the third position (after second NC-mod4)
explanation of position keyboard is on chapter 0 (page 9)**-NOT include**

7 –Default value – presetings to the firm settings. After making changes use the save changes button.

ATTENTION! This parameters setting will sharply influence whole DoorPhone function.

3.2.2 All about relays



After making changes use the **save changes** button.

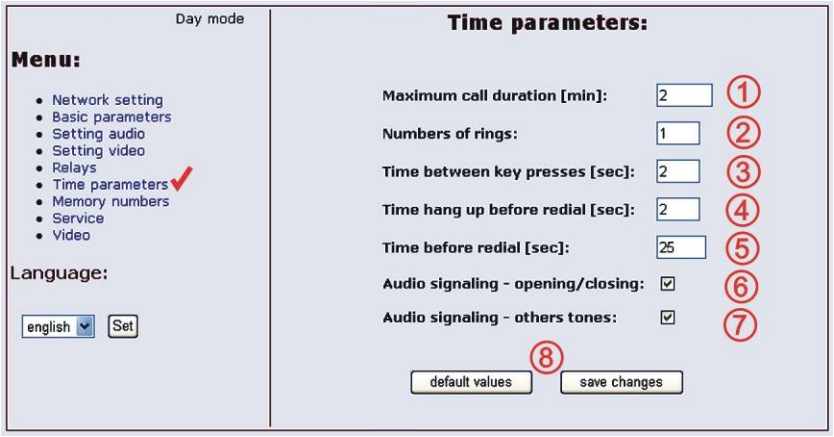
1 –Relay mode:

- **=1 switch** mode – it will close on command or password for period **t1/2** (used for electrical locks, gate opening etc.)
- **=2 camera** mode – it will close by guard pick up and open by hanging up.
- **=3 lighting** mode – it will close by guard pick up and stay closed even for period **t1/2** after guard hanging up.
- **=4 bell** mode – it will close after button pressing and open after period **t1/2** (used for e.g. external bell or horn connections).
- **=5 gradual opening** mode – in this mode the only relay 2 will be set together with relay 1 set to mode 1. The relay 1 is activated for period **t1**, then the time **t3** is proceeding before relay 2 closing. Then the relay 2 is activated for **t2** period and afterwards the DoorPhone hangs up.
  Note: *The only relay 1 can be activated from phone and all sequence started. Besides that the relay 2 can be separately activated from buttons by password.*

2 –password for relay closing from buttons or keyboard [2 to 6 digits]. Total 6 passwords, they are controlled by Day/Night; the combination is entered either by DoorPhone buttons (first 1/2 buttons) or from attached keyboard (after pressing of key symbol). The relay closing influences the set switch **mode** and **Day/Night** switchover. By setting of choice mode of **2 number groups** the DoorPhone is permanently in **DAY** mode.
By password choice some rules have to be observed:
- § Select passwords in way not to find its combination out from wear of certain buttons by frequent use.
- § Select the first password button from frequentless button for direct dialing (-extends choice time)(-not valid for keyboard).
- § Pay attention to congruity of password numbers when one password includes other one, e.g. relay 1 has 1234 and relay 2 has 12345. Then after pressing button 4 the only relay 1 is called, but password choice 234 for relay 2 can call both relays after pressing switch 4.

3 –Command from phone after relay closing [2 digits]. The same command can be set for both relays, then they are activated at the same time. The advantage is to set the same command both for relay closing and command to DoorPhone hanging up (page 22).
4 –Duration of relay closing in second [2 digits 01-99]
5 –To prohibit the control during incoming call is important e.g. when using relay 2 in mode 1 for control of garage gate opening, when the electronics opens the gate and the gate is closed by car passage. Then the control from phone could undesirably cause the permanent gate opening (not closed – no car passage).
6 –time in second between close relays 1 and 2 by mode setting of relay 2 is **5** (gradual opening) [2 digits 01-99]
7 –Default value – presetings to the firm settings. After making changes use the save changes button.

3.2.3 Time Parameters



After making changes use the **save changes** button.

1 –max. time, for which the DoorPhone is hanging up, this time can be extended during call by sign choice from telephone (* or #) – see page 22.

2 –Number of incoming call rings, the DoorPhone pick up after preseted number of rings. After detection first ring – LED on front panel blinking. The number can be set from 1 to 9.

3 –max. time [sec] among button presses [range 1-9]

- **switch closing** – if time between two next presses is bigger than **w** time, the code is not evaluated correctly.
- **dialing** – if the button, we are pressing, is the first password number for switch closing, so the choice is delayed by this **w** time**.**

4 –time [sec] for which the guard will hang up, before repeated dialing (button pressing during call or dialing, busy tone detection) [range 1-5]

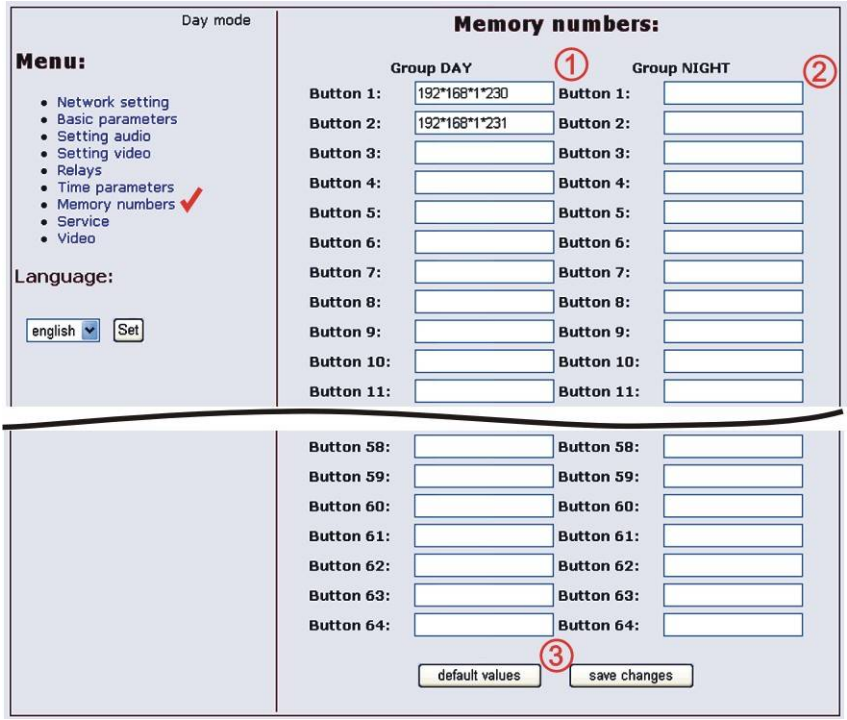
5 –after finishing the dialing it calculates time (ringing tones). If the number exceeds time in second, it will hang up [range 10-99]. The dialing is repeated in case, when the dialing mode of 2 groups is set.

6 –In default is status of DoorPhone signalling acoustically. If signalling makes problem, so this signalling pick up / hang up prohibited.

7 –In default is status of DoorPhone signalling acoustically. If signalling makes problem, so this signalling others tones prohibited.

8 –Default value – presetings to the firm settings. After making changes use the save changes button.

3.2.4 Direct Dialing – Memories



After making changes use the **save changes** button.

1 –telephone number up to 16 digits, we want to store. The numbers are the numbers of the **first group** or numbers of **Day** mode. In default setting is table memoirs empty. While using setting P2P to the memoirs saves IP address e.g . 192*168*1*250, where „*“ means „.“ , while using SIP proxy server to the memoirs saves phone number e.g. 117.

2 –telephone number up to 16 digits, we want to store. The numbers are the numbers of the **second group** or numbers of **Night** mode. In default setting is table memoirs empty. While using setting P2P to the memoirs saves IP address e.g . 192*168*1*250, where „*“ means „.“ , while using SIP proxy server to the memoirs saves phone number e.g . 117.
Note: The switchover to Day/Night mode remains set in DoorPhone even after power supply disconnection.

3 –Default value – presetings to the firm settings. After making changes use the save changes button.

4 Technical Parameters

4.1 Electrical Parameters

Parameter	Value	Conditions
Communication interface	Ethernet 10BaseT, 100BaseTx	
VoIP protocol supported	SIP	
Band width	300Hz – 3400 Hz	
Power supply of lighting through, switches and heating	12Vss ± 2V , 10-12Vst ± 2V	
Max. consumption	300mA	12Vss
Max. voltage of switch contact	48V	at I < 1A
Max. current of switch contact	2A	at U < 30 V
Operational temperature	- 20 to + 50°C	

4.2 Mechanical dimensions

Type of item	dimensions HxWxD [mm]
IPDPS-01	185 x 99 x 40
IPDPS-02	185 x 99 x 40
IPDPS-01C	185 x 99 x 40
IPDPS-02C	185 x 99 x 40

Guarantee conditions:

The product was shop-checked. The producer guarantees that this product will keep the features described in these operating instructions in the course of guarantee provided that the user will be handled with it as described in the operating manual. The guarantee will be extended by period of possible guarantee repair.

When claiming in guarantee period please contact your dealer. The producer only will make the guarantee repairs. Attach the description of claim reason, proof of purchase and your exact address to the product.

The guarantee does not include:

- mechanical, thermal, chemical and other damages caused by user's activities
- defects caused by natural disasters
- defects caused by repair or changes carried out by user or other unauthorized person
- willful damage of product
- incorrect use of product caused by other use than specified in operating manual (e.g. installation, programming)
- damages caused during product transport to customer and from supplier

Producer:
Dealer:
Date of sale:

ALPHA Tech

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